"The action of the antimony will soon tell on the skin and kidneys. Other usual external applications will be useful in most cases, but I would give nothing else but spoonfuls of ice-cold water, or ice to suck, by mouth, until the vomiting had ceased, and stimulants were required to relieve in the after-stage of prostration or collapse. It may appear strange that so powerful a remedy as antimony was but once thought of or tried, and that by a young unknown man in some out-of-the-way station in Bengal, forty-four years ago; but the disease, in its course, has given a strong and generally universal idea that it is a powerful and violent effort of nature to rid the system of an imbibed 'poison,' and as antimony purges and vomits, as well as being diuretic and diaphoretic, it would naturally be looked upon as only adding to the mischief. Did it never strike any one that if opium and astringents are the universally acknowledged remedies used in the preliminary diarrhœa by which the flux is checked, and the outlet for the poison by the bowels cut off, that it cannot be poison? Or, if it is, that the system digests or rids itself of it with the very first diarrhœal discharges? If not, why such an urgent appeal for opium to check the discharges?

"If there is poison, where is it? It has never been defined. Is it in the rice-water evacuations? A gentleman in Calcutta has been searching for it in the excretions from the body, but his results, he assured me, were wholly negative, as far as he had tried the effect on living animals; all the excretions were inert, and yet they had been made to swallow large quantities. It may be poison, but we cannot discover the poison, and we always try to shut it up in the system from the very first with opium, or, may be, the opium protects the system from the effects of the poison, and it is with *effects* that we have to deal in true cholera, and those are acute inflammation of the mucous membrane of the stomach and small intestines, and the consequences, and the quickest and most powerful remedy for acute inflammations is antimony.

"Opium does protect the system from threatened inflammations, I believe: and this may be one reason why opium is so signally successful in the preliminary diarrhœa."

"P. S. I meant to have spoken of the earnest way in which Annesley calls attention to the constant connection in epidemic cholera between the seat of the burning pain and the 'vermilion blush,' and the necessity and great use of active measures, early bleeding, &c. This is acute inflammation, and the treatment at that time. Moreover, Annesley remarks that this appearance after death is not found in any other disease.

"Suppose the entire mucous coat inflamed from the cardiac orifice of the stomach to the ileo-cæcal valve, we have, at the lowest computation, nine superficial feet of tissue involved, quite enough to account for the symptoms. What would be the effect of acute inflammation of fully one-half of the skin?

"*Heat, swelling, redness, and pain* exist in cholera in the tissue involved, these constitute inflammation, the inflammation is specific acute, and runs a certain course, terminating, it may be, in resolution and health, or causing irreparable mischief or killing in its unchecked course.

"Compare the effects of specific inflammation of a few square inches of mucous membrane in coryza."

31. *The Cholera in the Theatre of War of Bavaria during the Summer of* 1866.—According to R. Voltz the cholera was propagated from place to place, in the several localities where it appeared, by the arrival of troops, some of whom were labouring under diarrhœa, or were convalescents from bowel complaints, or were still affected with them as sequelæ of cholera. The propagation of the disease from the first isolated cases until it had spread generally throughout the community, is by Dr. V. traced with great precision. In ten localities cholera prevailed epidemically, in twenty-five other localities it occurred, as it were, in a sporadic form. In the several localities where it became epidemic it differed in respect to its limits, its severity, and its continuance. In neighbouring places of like conditions there would occur an interval of from three to four weeks between its appearance in one and the other, a circumstance inexplicable on the supposition that the production of cholera was due alone to a special morbific condition of atmosphere. Single cases were traceable to an infection

encountered in washing the clothes soiled with the dejections of cholera patients. The correctness of the position of Petenkofer as to the influence in the production of cholera by soils having a wet substratum is by no means established. Under the same conditions as to soil in different localities, the cholera has not appeared. Under the conditions of soil which have been assumed as those opposed to the occurrence of cholera, the disease has been known to prevail to a great extent and in its severest form. Voltz considers, therefore, that a porous wet soil is to be viewed only as one of the exciting causes of cholera, the same as impure water for drinking, crowded localities, poverty, uncleanliness, bad food, intemperance, etc.—*Centralblatt f. d. Medicinisch. Wissenschaften,* June, 1868. D. F. C.

32. *Ascending and Descending Breathing: its Value as a Symptom and its Mechanism.*—The peculiar irregularity of breathing referred to in this paper was first described by Dr. Cheyne. The early cases in which the symptom was observed were all cases of fatty degeneration of the heart, and it was supposed to be a symptom pathognomonic of that disease. It was thus described by Dr. Stokes. Among the indications of the malady he says there sometimes occurs "a form of respiratory distress peculiar to this affection, consisting of a period of apparently perfect apnœa, succeeded by feeble and short inspirations, which gradually increase in strength and depth until the respiratory act is carried to the highest pitch of which it seems capable, when the inspirations, pursuing a descending scale, regularly diminish until the commencement of another apnœal period." Other cases where this symptom was observed, however, occurred in which the heart was found to be free from fatty degeneration, but the left ventricle was found hypertrophied in consequence of valvular or arterial disease. This condition has hitherto generally been associated by writers with a weak state of the right ventricle, or attributed to some perverted action of the nervous centres. Dr. LITTLE offers a new explanation: "In health the right and left ventricles, though differing so much in the thickness of their walls, are equally competent for their duties; the right ventricle is able to fill the pulmonary capillaries as thoroughly as the left one, with the aid of the other forces which contribute to the circulation, fills the systemic. But if an abnormal burden is imposed on the left, if rigid valves narrow its outlet, or permit the blood it discharges at each systole to fall back into its cavity, or if the arterial coats, their elasticity destroyed by disease, no longer help the heart; if the aorta, instead of taking charge of each wave of blood as it leaves the ventricle, and propelling it onward by the steady recoil of its walls, is permanently dilated, and allows each portion of blood to remain in its ascending trunk, and so to impede the entrance of that which follows—under any of these conditions the left heart, however hypertrophied, may be quite unable to rid itself of the blood as rapidly as it is supplied to it by the right ventricle. Blood would, therefore, accumulate in the left auricle, in the pulmonary veins, and in the capillaries of the lungs. That blood having already absorbed as much oxygen as it required, would fail to produce that impression on the ultimate filaments of the pneumogastric which black blood does, and which impression is converted by the nervous centres into the motor impulse which produces breathing. Breathing would, therefore, cease; and inasmuch as the respiratory act seems to assist in carrying the blood to the left side of the heart, it would no longer be so overstimulated by fresh supplies, and its contractions would become less frequent and more regular. After a few systoles, however, it would succeed in discharging the red blood collected in its cavities to such an extent that they could receive some of that which lay in the pulmonary veins and lungs. Space being thus gained, the black blood which the pulmonary artery contained would reach the capillaries of the lung in amount proportionate to that of the arterial which had gone forward, and sufficient air would be drawn into the chest to aërate so much blood. That very act would carry forward a still larger charge of arterial blood to the left side, and make room for the reception, by the lungs, of a still further increase of venous blood, and, as a consequence, a still deeper inspiration would follow, and the deepest would occur when the largest quantity of venous and the smallest quantity of arterial lay in the lungs. The red blood,